

Abstract

A microturbine engine comprising a turbine including a first housing and a turbine rotor. The engine also includes a generator having a second housing and a generator rotor. The generator rotor is supported for low-speed rotation by a low-speed bearing. The engine also includes a gearbox having a third housing connected to the first housing and the second housing, a pinion gear, and a low-speed gear connected to the generator rotor and at least partially supported by the low-speed bearing. A shaft is connected to the turbine rotor and the pinion gear and a first high-speed bearing and a second high-speed bearing are positioned to support the turbine rotor and the shaft for high-speed rotation.